

Mr Wood's compliments.

OBSERVATIONS

ON

PAINFUL SUBCUTANEOUS TUBERCLE,

WITH CASES AND HISTORIES OF THE DISEASE.

By WILLIAM WOOD, Fellow of the Royal College of Surgeons, and F. R. S. E.

IN the year 1812, I ventured to bring under the notice of the medical profession, through the means of the Edinburgh Medical and Surgical Journal, published in July of that year, some observations on a disease which did not appear to me to have met with that attention from medical men to which I considered it entitled, both on account of the singularity of its symptoms, and of the severity of the suffering to which it gives rise.

Not having been successful in finding any mention of this disease, in the writings of authors, previously to the publication of my communication, I drew up its history from cases which I had met with in private practice, and from some others, with which I had been favoured by my medical friends here: and from these sources I was enabled to give a detailed

account of the disease, as it occurred in eight females.

From the similarity in the symptoms and progress of the complaint in all these cases, and from their being essentially different from those of any other, I was induced to consider it as forming a distinct species of tumour; and, with the view of attracting the attention of medical men to the subject, that additional observations might be collected, and that an accurate examination might be made into the nature of the morbid part, I ventured, at the suggestion of my friend Dr Thomson, to give to it the name of *Painful Subcutaneous Tubercle*. This name was adopted as being descriptive of the seat of the tumour, and of its principal symptom; but not involving any theoretical opinion in regard to its nature. I was anxious, indeed, both in describing the disease, and in giving to it a name, to avoid doing any thing which might lead to the idea that its real nature had been ascertained: because, although, from the symptoms, and more particularly from their bearing a strong resemblance to those of Neuralgia, I was induced to believe that the tubercle would be found to be intimately connected with the nervous system, I had not been able to satisfy myself in regard to the texture in which the alteration of structure had taken place; or as to the mode in which the tumour had been connected with the nerves.

“ The disease consists in the formation of a lump or tubercle, of a peculiar nature, in the subcutaneous

cellular substance. This tubercle is met with in different parts of the body, but most frequently in the extremities. It is extremely small, generally of the size and form of a flattened garden pea, and, in none of the cases of which I have been able to procure a distinct account, larger than a coffee-bean. It is of a firm consistence, and is apparently quite circumscribed, being situate loosely in the cellular substance, immediately under the integuments, which retain their natural colour and appearance.

“ In the greater proportion of cases, there is no visible appearance of disease whatever, and it is only when the surgeon applies his finger to a particular spot pointed out by the patient, that he becomes sensible of the existence of the tubercle. In some few cases, however, although small, it is so superficially seated as to form a visible prominence.

“ As in all the cases with which I am acquainted, the tubercle had attained nearly its full growth before its presence was detected, I am unable to say whether it is originally of slow or rapid formation, but having acquired a certain size, it remains nearly stationary, undergoing hardly any perceptible increase of bulk, even in the course of a great many years; nor does it ever shew any tendency to affect either the skin or surrounding cellular substance. In one only of the patients whom I have seen, or of whose disease I have procured an account, has there been found more than one of these tubercles, and in that person there were present no fewer than three at the same time.

“ Trifling as the diseased part is, in point of size and appearance, it becomes the cause of very severe and even of excruciating pain. So strongly is this pain represented by the patients, that we might be apt to imagine their statement exaggerated, did we not find them all concurring in the same representation, and most of them willing to submit to any operation that may be necessary to remove the cause of their pain. Two women in the lower rank of life came to me, even from a distance of above 30 miles, to have a consultation about this disease, and both of them expressed their willingness to submit to any temporary pain, however severe, which might remove their complaint.

“ The pain to which this disease gives rise is extremely acute in the tubercle, and extends from it to a considerable distance along the neighbouring parts : it is not constant, but occurs in paroxysms. In general, at the commencement of the paroxysm, the pain is slight, but gradually increases till it becomes excruciatingly severe, and it goes off in the same gradual manner, leaving the parts in the neighbourhood of the tubercle, for some time afterwards, sore to the touch, as if they had been bruised. The paroxysms vary in duration from ten minutes to upwards of two hours ; but they seem to increase both in frequency and severity, in proportion to the length of time the disease has existed.

“ Some of the patients have occasional intervals of ease for days or even weeks ; in others the paroxysms occur several times in the course of one day. They

generally come on spontaneously ; but in one of the cases which I met with, they were sometimes induced by the friction of the clothes along the surface of the tubercle. They frequently attack the patient when asleep, in which case he is suddenly awoke by the severity of the pain.

“ The degree of pain produced by touching the tubercle is different in different cases ; all the patients whom I have examined allowed it to be freely handled, *in its ordinary state*, without feeling much uneasiness, but complained of great aggravation of the pain, from either the tubercle or surrounding skin being even slightly touched *during the paroxysm*. Acute pain is produced at all times, by the tubercle being accidentally struck against any hard substance. One lady, of whose case I shall give a detailed account, conceives that the sensibility of the tubercle is materially affected by every change in the weather, whether from heat to cold, or from cold to heat. Several of the patients have stated, that they are sensible of an increase in the size of the tubercle *during the attack of pain*, and some of them have occasionally observed, at the same time, a degree of discoloration of the skin covering it, which became of a purplish or bluish cast ; and although I have had no opportunity of ascertaining the truth of these statements from my own observation, I have no reason to doubt their accuracy.

“ It is a singular circumstance, that in all the cases which have come to my knowledge, with perhaps one exception, this species of tubercle occurred in

females. It does not appear to be confined to any particular age, but it is frequently met with at an early period of life, and I have known it remain nearly unchanged for upwards of eighteen years.

“ From the very severe and almost constant suffering to which the patient is exposed, the tubercle frequently becomes the subject of operation, and fortunately it may be extirpated with perfect safety, no unpleasant symptom having ever, so far as I know, been produced by the operation. The patient becomes free from all pain and uneasiness, as soon as it is removed, and, so far as experience yet goes, there seems to be no tendency to a return of the disease. In removing the tubercle, it is found to be quite detached from the integuments, and to be but loosely connected with the surrounding cellular substance, both of which are, to all appearance, perfectly sound. From this circumstance it is unnecessary to take away any portion of the skin, and only a very inconsiderable quantity of the cellular membrane. The wound frequently heals by the first intention, and, even in those cases in which suppuration takes place, the cure is seldom prolonged for any considerable length of time. On dividing the tubercle with the knife, after it has been removed from the body, it is found to be of a pretty firm consistence, and it exhibits an uniform structure, somewhat resembling cartilage in appearance, but it is by no means so hard *.”

* Edinburgh Medical and Surgical Journal, vol. viii. p. 283.

Soon after the publication of the Journal for July 1812, containing this history of the disease, with a detailed account of eight cases, I was informed, by some learned medical friends, that, although they were not aware of the existence of any very full or accurate general history of this complaint, it had been mentioned, and individual cases of it had been described, by several authors. I availed myself of the earliest opportunity of publishing the additional information which I had thus received, in a second communication inserted in the same Journal for October 1812; and in it I was enabled, by the references which I had obtained, to extract a short but distinct account of the disease from the latter editions of Cheselden's *Anatomy*, and a very accurate description of the appearance of the tubercle, from the celebrated Camper's work, entitled, *Demonstrationes Anatomico-Pathologicae*.

"Immediately under the skin of the shin-bone," says Cheselden, "I have twice seen little tumours, less than a pea, round, and exceeding hard, and so painful, that both cases were judged to be cancerous; they were cured by extirpating the tumour: but what was more extraordinary, was a tumour of this kind, under the skin of the buttock, small as a pin's head, yet so painful that the least touch was ~~un~~ ^{un}supportable, and the skin for half an inch round was emaciated; this, too, I extirpated, with so much of the skin as was emaciated, and some fat. The patient, who, before the operation, could not endure to set his leg to the ground, nor turn in his bed

without exquisite pain, grew immediately easy, walked to his bed without any complaint, and was soon cured *."

Camper's description of the tubercle is in the following terms: "Non raro in nervis cutaneis tubercula parva ac dura observantur, quæ vera ganglia sunt, pisi magnitudinem licet non excedant; dies tamen noctesque acutissimis lancinantibus doloribus ægros torquent: externis remediis non cedunt, scalpello igitur ea attingere oportet. Fræqueræ ex cubito fœminæ tale, plaga facta, sustuli, quod ramo musculo-cutanei nervi adhærebat: post operationem optime se habuit. In subcutaneis nervis frequenter esse videntur. Amstelædami simile ganglium genu mulieris occupans, eodem modo sanari curavi. In viris plus semel ea vidi: albicant intus, cartilagineæ duritiæ sunt, renitentia, et intra nervorum tunicas sedem habent †."

I gave a full account, also, of a very interesting case described by Dr Bisset ‡, of two cases published by Mr John Pearson §, and I alluded to two additional cases which had been met with here, with the history of one of which I had been favoured by my late respected friend Dr William Brown; and the other I had seen along with my friend Mr Newbigging.

* Cheselden's Anatomy, 10th Edition, p. 136.

† Camper, *Demonstrationum Anatomico-Pathologicarum Liber Primus*, p. 11.

‡ Memoirs of the Medical Society of London, vol. iii. p. 58.

§ Medical Facts and Observations, vol. vi. p. 96.

In the case reported by Dr Bisset, of what he terms "An extraordinary irritable sympathetic tumour," the tumour appeared originally in the form of a small pimple, of the colour of the skin, on the outside of the left leg of a girl of thirteen years of age; in and about which pimple she usually had some little uneasiness, immediately before a great fall of rain or snow, and in very windy weather. The tumour remained in this state till soon after she first conceived, when it increased to the size of a large filbert, and became in the highest degree irritable. The patient now began to be affected with a violent periodical pain in it, which recurred twice or three times, and sometimes oftener, in 24 hours, at unequal and uncertain intervals, the duration of each paroxysm often varying a little, and never exceeding one hour. The pain darted, when most violent, to the origin of the tibialis anticus, and from thence often upwards to the spine of the ilium. The pain was instantly excited also, during the pregnant state, by the tumour being rudely touched with a finger, or with the skirts of her petticoat; but these accidental paroxysms were always of short duration. As soon as this patient was delivered of her first child, the little tumour became at once exempt from any uncommon irritability, and the periodical paroxysms of acute pain quite ceased; and in this state it remained during thirteen months, except that some little uneasiness was perceptible before the falling of much rain or snow. In the end of that period, the patient having again conceived, the

tumour acquired its former irritability, and she was affected precisely in the same manner as she had been during her first pregnancy. At this period an attempt was made, by a surgeon, to cure the disease, by making a crucial incision into the tumour, to promote suppuration, and to destroy its irritability; but as this failed, excision was had recourse to, which proved effectual. Immediately after her third conception, however, the little tumour was reproduced, but did not increase quite to its former size, and the paroxysms of pain commenced and returned two or three times daily, as during the former pregnancy. When the third child was born, the tumour became at once perfectly indolent, as it had formerly done. The patient having again conceived, the irritability of the little tumour commenced as usual, and the periodical pain became more violent than ever. At this time Dr Bisset was consulted, who directed the application of the caust. commune fort., which produced its effect in twenty minutes. After the separation of the eschar, some small remains of the tumour were destroyed by caustic. By this means an effectual cure was accomplished, as, during two successive pregnancies, there was not the least return of the disease.

In the first case detailed by Mr Pearson, the tumour was of seventeen years' standing; it occurred in a married female, of 51 years of age, when in the third month of her second pregnancy. "The skin," says Mr Pearson, "which covered the particular seat of her complaint, retained its natural colour;

but there was a circular induration, of about half an inch in diameter, very little elevated above the surface, which was exquisitely painful, when slightly touched or compressed. This morbid part was situate in the course of the vena saphena major, and was about six inches above the joint of the ankle. Besides the acute pain, which was produced by inadvertently touching this little tumour, Mrs P. commonly suffered several paroxysms of pain every day ; each of these attacks was accompanied with an increased redness, and a sensible elevation of the indurated part, the pain at the same time extending to the knee, and often darting to the stomach ; the duration of the fit was about twenty minutes ; it was attended with slight convulsive motions of different parts of the body, and frequently terminated with flatulent eructations. These fits of pain did not recur at any regular periods ; so that the number which she underwent in the course of a day was various and uncertain ; for a disordered state of the stomach, or a sudden perturbation of mind, would at any time excite one of the paroxysms. She also had observed, that the severity of her sufferings was invariably increased during the periods of menstruation and pregnancy ; and that, in the latter months of gestation, the duration of each recurrence of pain was extended to an hour and a half. But although this disease was uniformly aggravated by certain alterations in the state of the uterus, yet it continued with undiminished severity after Mrs P. had ceased to bear children ; for, when her youngest child was

more than six years old, she had not experienced any abatement of her daily sufferings. About thirteen years ago, I advised her to have the morbid part removed ; but, at that time, she was unwilling to undergo an operation." The tumour was at last destroyed by caustic. " She endured the most excruciating tortures during several minutes after its application ; but the pain gradually diminished with the sensibility of the part ; so that, in about twenty minutes, the eschar was completely formed, and she then felt no more pain than what is the usual consequence of a caustic applied to any part of the body. From this day, she never experienced the recurrence of a single paroxysm of pain ; the eschar exfoliated in about twelve days ;" and in about seven weeks the sore was perfectly healed.

In the second case mentioned by Pearson, the tubercle was situate at the posterior part of the leg of a female, near the beginning of the tendo Achillis : From this, he states, " The patient suffers acutely whenever it is touched. She has occasional paroxysms of pain, but they return at uncertain intervals, and she thinks that they grow milder. In this instance, as in that recorded by Dr Bisset, the tumour becomes uneasy in rainy and windy weather ; but it does not appear that the disease had ever any connexion with pregnancy."

The only cases which, so far as I know, have been published in this country, since 1812, are three, contained in the Edinburgh Medical and Surgical Journal, and one in a dissertation on the treatment

of morbid local affections of nerves, published by Mr Joseph Swan, in 1820.

The first of these is very minutely and accurately detailed by Dr Marshall Hall *. The tubercle was small, of the texture of cartilage, situate near the point of the fore-finger of the left hand of a man, to whom it had been the cause of severe and painful suffering for the long period of twenty-two years, from which he was completely relieved by the removal of the diseased part.

The second case is an interesting one, of which a very distinct account is given by Mr John Windsor †. He found, on removing the tumour, which was of the size of a large pea, a filament of a nerve going to it, and penetrating into its substance. The tumour was in the fore-arm of a woman, and was of six or seven years standing: when laid open, it was found to contain “a number of granules quite gritty or earthy to the feel.” A cure was effected by excision.

The third case is accurately described by Mr David Laing ‡. The tubercle was of the size of a horse bean, of two years' standing; it was encysted, and apparently of a cartilaginous nature; it occurred in the leg of a female, and was removed by the knife.

In the case published by Mr Swan ||, the tuber-

* Edinburgh Medical and Surgical Journal, vol. xi. p. 466.

† Ibid. vol. xvii. p. 261.

‡ Ibid. vol. xviii. p. 245.

|| Dissertation on the Treatment of Morbid Local Affections of Nerves, by Joseph Swan, 1820, p. 81.

cle, at the end of seven years, had attained the size of a large pea; it was seated about the middle of the leg of a married female, and appeared without any known cause. "The pain she suffered," says Mr Swan, "was very great, and was always brought on and aggravated by surprise, fear, or any affection of the mind, and likewise by cold. Keeping the whole body warm, always relieved the pain. After she had suffered very much, she consulted a surgeon, who divided the skin over it, and recommended the wound to be kept open, and caustic to be frequently applied to it. It was treated in this way for three months, but without any good effect. Some time after, I saw her, and cut out the tumour, with the surrounding portion of skin. When cut into, it had a cartilaginous appearance, and a cutaneous nerve was seen passing between it and the skin, and an expansion of the nerve was spread over it. After its removal, all the distressing symptoms left her, and never returned."

To these cases I am enabled to add four, which have not yet been published.

The first of them I had an opportunity of seeing, in the year 1813, under the care of my friend Mr John Walker, Fellow of the Royal College of Surgeons. The tubercle was of the size of a pea, situate in the leg of a young lady, over the tendon of the peroneus longus muscle; it was of four years standing, and had been gradually, but very slowly, increasing in size: she suffered excessively from violent attacks of pain in the tubercle, extending down-

wards to the foot. These paroxysms recurred spontaneously, and generally several times in the course of each day, but were more frequent at changes of the weather. The pain frequently continued for three quarters of an hour at a time, and it became gradually less severe before going off. The tubercle, by her account, appeared to increase in size during the paroxysms, and the skin over it, which was in general of its natural appearance, assumed a bluish colour. For eighteen months this disease had been the cause of very great suffering, as the paroxysms, which had always been severe, had both increased in frequency and duration, and the pain had become much more acute. She willingly submitted to the removal of the tumour by the knife, and was by this means entirely relieved from her suffering.

Of the second case, I have received a very distinct account from my friend Dr David Hay, which I shall state in his own words.

“ In the month of April 1825, I removed a painful subcutaneous tubercle, from the inside of the leg of a lady about sixty years of age. The tubercle was seated over the lower edge of the gastrocnemius externus, just at the part where the soleus extends beyond it. It was most acutely painful during the night, particularly towards morning ; the paroxysms of pain were by no means regular in their accession or their duration, frequently lasting several minutes, at other times being more transient, although so frequent in their recurrence as to banish sleep. The pain was compared to that of the toothache of the

most excruciating kind. During the fits of pain, the tubercle became more than usually turgid, and the integuments covering it redder than usual. Handling occasionally excited the pain, but not always, as the tubercle often bore examination like any other part of the skin. The lady first remarked the pain in her limb, about three years before, and was led by it to discover the existence of the tubercle. She had applied evaporating and anodyne lotions without relief, and gladly submitted to have it removed by excision, in order that she might be freed from the suffering it induced.

The tubercle was about the size of a pea, of an oblong rounded shape; its under surface was slightly lobulated. The wound healed by the first intention, and there has been no return of pain in the part from which the tubercle was removed." The tubercle has been deposited by Dr Hay, in the Museum of the Royal College of Surgeons*.

The third case is that of a lady, whom I had an opportunity of seeing under the care of my friend Dr Simson, who has favoured me with the following account of the symptoms and progress of the complaint.

" *March 1827.*—Mrs D. æt. 36. On the outer edge of the triceps extensor cubiti muscle of the

* A representation is given in the Plate Fig. 1. of the size and form of this tubercle.

right arm, and about two inches above the elbow-joint, there is situate a small, hard, subcutaneous tubercle, about the size of a garden-pea, which is moveable, and at times can be examined without any uneasiness, whilst at other times the least touch brings on a paroxysm of pain. She states, that, about six years ago, when at rest, she felt a sensation as if she had been stung by an insect, and that, upon raising her hand to the part pained, a small swelling was discovered, not much less than at present, which, for the first four years after, gave her little uneasiness, the attacks of pain being few, slight, and not of long continuance. That for the last two years, and more particularly during the last winter, the paroxysms have been exceedingly severe, occurring very frequently, and continuing at times for several hours, during which time the pain extends for a considerable distance over the neighbouring parts. The tumour also, she thinks, has increased during that time a little in size. For the last three months she has had, almost every night, upon going to bed, an attack of pain, and also upon getting up in the morning. During some of these paroxysms the pain is so severe that she cannot allow the bed-clothes to touch the arm, and she has to sit up in bed for several hours. Cold, she thinks, brings on the attacks oftener than any other cause; and she has been in the habit of wearing flannel for some months upon the arm, to protect the tubercle from the influence of changes of weather. Smart blows also bring them on; and not unfrequently

they occur without any evident cause. When the paroxysm is severe, the tumour is a little elevated, and there is often a bluish appearance over the external point. The tumour was easily removed by a simple incision through the skin, and was found very slightly attached to the surrounding parts. It is about the size of a large garden-pea, pointed at the top, and somewhat lobulated. When cut into, it has the colour of the medullary part of the brain, appears to be fibrous, and is nearly of the consistence of soft cartilage. The wound healed by the first intention, and she never has had any more pain.

The tubercle is preserved in the museum of the Royal College of Surgeons.

The fourth case is that of a female servant, of about 50 years of age, at present under my care. The tubercle is of the size and shape of a French-bean, but rather flatter; it is placed upon the left foot, a little below, and anterior to, the outer ankle; it is very prominent, in consequence of its situation, and of the integuments lying over it being extremely thin. She has been subject for the last seventeen or eighteen years to frequent severe attacks of pain in the tumour, occasionally shooting to the toes; these attacks generally come on spontaneously, and are most frequent during the night. They occur occasionally several times in the course of one night; and they often destroy her sleep night after night. She is sometimes free from these attacks for weeks or months; they are most frequent at changes of the weather, and particularly during the winter.

The pain at the commencement of the paroxysm is slight, but gradually increases, till it becomes excessively acute and shooting, like that of very severe toothache ; it lasts for an hour or more at a time, and before going off seems to be converted into a burning heat. She is aware that the paroxysm is drawing to a close, when the acute pain subsides, and the feeling of burning heat commences. During the paroxysm, the tubercle is excessively painful to the touch, and is sometimes of a bluish appearance ; in its ordinary state, however, it may be handled freely in any direction, without uneasiness being excited. The tubercle was first observed about thirty years ago, immediately after a sprain ; about fourteen years since it was the size of a pea, and had not before that time been the cause of any great distress. She declines for the present having the tumour removed, as she thinks she has not suffered so much for some months as she did formerly ; and she has been impressed with the belief that she will become permanently lame, if any operation should be performed *.

The disease of which we are treating, seems to have met with much more attention from continental authors, than from those of this country ; and my attention having been particularly directed to their writings, by the judicious remarks of the re-

* The size and form of this tubercle is represented in the Plate Fig. 2.

viewer of Dr Abercrombie's very valuable work on the Diseases of the Brain and the Spinal Cord, contained in the last number of the Edinburgh Medical and Surgical Journal, I have looked into such of these works as were within my reach, and have had the satisfaction of finding that many cases of the disease have been published, and that some interesting and accurate accounts of its history have been written both previous to and since 1812. I shall proceed to give an abstract of these cases and histories, as several of them are contained in works not generally in the hands of medical practitioners in this country.

Of the older authors, Hippocrates, Galen, Avicenna, John de Viego, and Ambrose Paré, have all been referred to as describing swellings or tumours of the nerves * ; which may possibly have been of the same nature with those which we are considering; but the accounts of them are so vague as to render it impossible for us to judge accurately either of their real nature, or of their effects. In the work of Morgagni, however, *De Sedibus et Causis Morborum*, there is a case related by Valsalva, which may, I think, be regarded as one of those at present under consideration. “ *Virgini, aiebat Valsalva, fuisse exiguam ad malleolum extuberantiam, quæ ab annis plus sexdecim, tantos sæpe crearet dolores, ut non*

* Alexander, *Dissertatio Medico-Chirurgica de Tumoribus Nervorum*, Lugduni Batavorum, 1810, p. 14. Descot, *Dissertation sur les Affections Locales des Nerfs*, à Paris, 1825, p. 208.

semel nisi domestici prohibuissent, cum sibi pedem fuisset abscissura. Sectis ibi secundum cruris longitudinem communibus integumentis, glandulam a se deprehensam esse parvam, forma ovali, sed depressa, colore et natura uti videbatur inter conglobatas et conglomeratas media. Hac adempta glandula, nullum amplius dolorem rediisse *."

Marc Antoine Petit, in a Discourse " Sur la Douleur," delivered at Lyons in 1798, which is published along with his " Essai sur la Medecine du Cœur †," says, " Je n'ai pu soulager que par l'extirpation, les atroces douleurs qu'occasionnent certains ganglions nerveux que l'on voit se développer sous la peau;" and he adds in a note, " Cette espèce de maladie est assez peu connue; ce sont de petites tumeurs, du volume d'une fève, très dures, mobiles, sans couleur, survenues dans des endroits frappés, et le plus souvent sans cause apparente, qui occasionnent des douleurs cruelles au plus léger toucher, dans les mouvemens un peu violens, ou dans les changemens de temps. Aucun topique ne les soulage; rien ne peut les dissoudre; l'extirpation guérit seule. On trouve une tumeur blanche, enveloppée d'une membrane fibreuse dans son interieur, ordinairement adhérente à la peau, assez libre dans le tissu cellulaire, ou elle ne paraît tenir qu'aux filets nerveux dont elle est l'épanouissement. Le plus

* Morgagni, De Sedibus et Causis Morborum, vol. iii. p. 28.

† Essai sur la Medecine du Cœur, &c. 1823, p. 256.

grand nombre de celles que j'ai opérées était aux jambes ; une seule occupait l'avant-bras." This is a short but accurate description of the disease, and the author seems to have adopted the same opinion with Camper, that it depends upon an affection of the small branches of the subcutaneous nerves. He refers to the case detailed by Valsalva as being of the same nature.

Odier of Geneva, in his " Manuel de Medecine Pratique," which contains a summary of a course of lectures delivered in 1800, 1801 and 1804, in treating of tumours says, " J'appelle *Chondrome* une petite tumeur mobile, et de substance cartilagineuse, que j'ai vue quelquefois, soit en consequence de quelque contusion, soit sans aucune cause connue, se manifester dans les parties molles, et que sa forme anguleuse et irreguliere rend souvent tres douloureuse. Elle ne se guerit que par l'excision." I am disposed to think that the disease to which Odier refers is the same with the one I have described, as the tubercles in it have been generally found to exhibit the appearance of cartilage ; and I am not aware of any other author having mentioned the existence, in the soft parts, of small pieces of real cartilaginous matter, producing pain only by their form. After having described the species of tumour which he terms *Chondrome*, he proceeds: " Enfin, on peut donner le nom de *Neuromes* à ces tumeurs mobiles, circonscrites et profondes, qui sont produites par le gonflement accidentel d'un nerf, à l'extrémité duquel la compression de la tumeur fait éprouver des crampes

tres penibles. C'est heureusement une maladie rare." Under this species, as described by Odier, and denominated *Neuromes*, I conceive ought to be comprehended those large tumours which are found to be distinctly connected with the nervous trunks, and of which he proceeds to detail a case which occurred in his own family; the tumour was connected with the radial nerve, and, on account of its great increase in size, it was found necessary to remove the arm*.

Cases of this kind have been described by various writers; Odier refers only to those mentioned by Gooch and Cheselden.

Portal, in his work entitled, "Cours d'Anatomie Médicale," published in Paris in 1804†, when treating of the nerves of the arm, says, "Il se forme quelquefois des durillons dans les nerfs cutanés, et dans les autres nerfs, qui ne deviennent pas plus gros qu'un pois. '*Pisi magnitudinem non excedunt*,' dit Camper. Ces durillons peuvent donner lieu aux douleurs les plus vives. Camper a cru devoir les extirper, et il l'a fait avec succès. Ces ganglions contiennent intérieurement une substance blanchâtre, et sont renfermés entre les fibrilles des nerfs." This account seems to be taken from that of Camper; he adds, however, a detailed history of a very interesting case, which was met with by Le-

* Odier, Manuel de Medecine Pratique, p. 362.

† Portal, Cours d'Anatomie Medecale, 1804, vol. iv. p. 246.

duc, one of his former pupils, which will be particularly noticed afterwards in this communication.

In the first volume of a work published by J. B. Von Siebold in 1805 *, the following case is recorded by Neumann. A man of seventy years of age had, for above thirty years, in the middle and inferior part of the fore-arm, a swelling of the size of a pea, very painful to the touch, and upon the slightest pressure. It had arisen from a severe blow on the arm ; the skin covering it was moveable and healthy, but it was immoveable itself, in consequence of adhering to the muscles. During the preceding year, the tumour had increased to the size of a middle sized bean, and its sensibility had been very much increased, so much so that the man experienced intolerable pain, stretching along the hand and arm upon the slightest motion ; and, on stronger pressure, after a short but violent pain, he lost, for a time, all feeling and power of the arm. There then arose a sensation of numbness or sleeping in the whole arm and hand ; and the return of feeling and muscular power was attended with a painful tingling. In consequence of these symptoms, the patient consulted Neumann, who advised that the tumour should be extirpated. The skin being divided, several arteries required to be secured ; the tumour appeared white and unequal ; it was, upon examination, found to be formed by a knotty thick-

* Sammlung seltner und auserlesener chirurgischer Beobachtungen und Erfahrungen. Band 1st. S. 54.

ening of the cutaneous nerve, at the place where it passes from the muscle to the skin. The patient was distressed with so great pain that Neumann durst not cut the nerve, and the more so that an artery was so near that it would have been divided along with it. He thought that it would be imprudent to apply a ligature, for fear of convulsions ; he resolved, therefore, first to diminish the sensibility by narcotics, and then to destroy the tumour by bringing on suppuration. By the application, for three days, of opium and oil of turpentine, the sensibility was so much diminished that he was enabled to apply caustic, by which the tumour was gradually and completely destroyed. When the cicatrization, however, was going on, and the patient felt so well that there was a hope of perfect health being restored, he died suddenly from apoplexy, brought on by a fall upon the ice.

To this case, Siebold has added an account of the cases of tumours of the nerves, which he considers similar, recorded by Cheselden, Camper, Bisset, Home, Dubois, Hesselbach, &c. and the following one, which fell under his own observation. " I myself," he says " (the publisher of this collection), had an opportunity of observing it in a singular old woman, who, in consequence of the number of children she had borne, had acquired on both legs and feet a considerable plexus of varicose vessels, and had frequently experienced erysipelatous inflammation in these weakened parts. On one of these varicose feet, in front, between two small bones, there were

two such small nervous swellings, which lay almost close to one another. The patient suffered the most intense pain; soothing and exciting remedies, in particular opiates, were of little avail internally or externally. When these bean-like swellings were touched, the woman experienced intolerable pain. My father resolved to destroy them by the caustic of Bernard, in which he succeeded. But some years afterwards they recurred with the same violent symptoms. A surgeon applied the same corrosive, but without success, not knowing how to use it. I was called, and, influenced by the *juvantia* and *lædencia*, I resolved likewise to destroy these swellings, but left it to the patient to determine whether she would be relieved by the hot-iron, or by the same corrosive as before. She preferred the latter. In order that the caustic might operate properly, and destroy the nervous tubercles, I made a deep incision into both tubercles with a bistoury, upon which the patient uttered a piteous cry, so that the whole relations ran in from the adjoining room. As soon as the small bleeding from the little wounds had ceased, I applied the caustic, and with so much success, that, up to the present time, the patient has not complained of any fresh attack. From the great age of the patient, and other symptoms, I am disposed to consider them as connected with gout."

Dr Alexander, in an Inaugural Medico-Chirurgical Dissertation, published in Holland in the year 1810, "*De Tumoribus Nervorum*," after referring

to the writings of the older authors, quotes Camper's account of the small tumours described by him, and gives a detailed statement of the cases published by Neumann and J. B. Von Siebold ; of the latter, however, his account is very incorrect. These he considers as of the same nature with the disease which has been termed Neuroma by Odier ; and to the numerous cases of this kind which he quotes from the writings of Cheselden, Sir Everard Home, Dubois, Petit, Louis, Hesselbach, &c. he adds two original cases which he had seen under Reich. But whether the opinion generally entertained in regard to the nervous origin of the small tubercles, which I have denominated Painful Subcutaneous, shall be ascertained to be correct or not, it appears to me desirable that they should be treated of separately, and considered as forming a distinct variety, if not species of tumour, from those of larger and more rapid growth connected with the nervous trunks, because they differ from them in situation, symptoms and progress, as well as in size ; and in the one case the diseased part may be taken away by the knife with perfect ease, safety and effect ; while, in the other, the removal of the limb is occasionally found necessary ; and even when the tumour can be dissected out, the operation is not always free from danger to life, as has been proved by experience.

Monteggia, in treating of tumours*, refers to

* Monteggia. *Istituzioni Chirurgiche*, 1813, vol. ii. p. 195.

those described under the term *Chondroma* by Odier. He says, they are "solid, organized, fleshy tumours, which acquire occasionally a great degree of hardness, nearly approaching to that of cartilage." This description of the texture of the tubercles tends to confirm the opinion stated above, that they are of the same nature with those described by Camper, &c. as tumours of the nerves. He then proceeds, "Other tumours of a fleshy nature, or still harder, form at times in the cellular substance, or in the proper tissue of the nerves, or so near to them as to implicate and hurt them by their adhesion, or pressure, and have been called by Odier *Neuroma* or Nervous Tumours. They are moveable, circumscribed, deep; caused, according to him, by the swelling of some nerve." Monteggia refers to the case which occurred in the family of Odier, in which it was found necessary to amputate the arm. He then quotes from M. A. Petit, the account of the small tumours described by him, which he considers of the same nature with these arranged under the term *Neuroma* by Odier. To me, however, they appear to have a much stronger resemblance to those classed by him under the name of *Chondroma*; and to be decidedly of the same nature with those mentioned by Camper, &c. "Some regard these tumours," he says, "as true scirrhus or cancer of the nerves. Jacopi appears to suppose with some other authors, that the neuroma is formed by a condensed humour between the nerve and its sheath; and gives a case of a slight hardness in the calf of

the leg, which compressed the nerve from without, and produced the same symptoms as neuroma, which ceased on its extirpation *."

" Different observations of neuroma," adds Monteggia, " may be quoted, as having been made by Valsalva, Camper, Gooch, Cheselden, Bisset, &c. which prove that this disease is not rare, and that it should be treated of, therefore, in the institutions of surgery. I have seen them both in the fore-arm and leg accompanied by pain for many years, with some atrophy; and I have also extracted a small one from the side of a finger or toe. And, finally, in a dead body I found all the nervous system occupied by hundreds of neuromata,—a circumstance which would seem to shew, that there at times occurs a neuromatose diathesis, as we sometimes see the steatomatous, lipomatous, &c. by the endless multiplication and diffusion of similar tumours through the whole body. The application of ice has been sometimes useful in alleviating a little the great pain of neuromata; on other occasions baths and mineral clays have been of advantage. I have seen benefit result from the application of a cautery to the pained part. But the only cure for all these is the extirpation of the neuroma as long as it is accessible to diagnosis and cure, or of the whole part from which it originates, if the severity of the symptoms warranted so harsh a determination."

* Jacopi, *Prospetto della Scuola di Chirurgia pratica*, vol. i. cap. 9. Milano 1813.

The latest, and by far the most full and accurate history of the disease is that given by Dr Descot, in his dissertation upon the local affections of nerves, a work published in Paris in the year 1825, which, he says, was written under the direction of the celebrated Beclard. He treats of it in his chapter upon neuroma or tumours of the nerves. These he comprehends under two heads; he says, "*Le volume et le siege de ces tumeurs peuvent les faire distinguer en deux sortes.*" The one he terms, "*Tubercule sous cutané douloureux,*" the other, "*Tumeur volumineuse ou multiple des Nerfs.*" After describing the subcutaneous tubercles, he says: "*Ces petites tumeurs sont ordinairement enveloppées dans le tissu cellulaire, et n'y paraissent adherentes que par les filamens nerveux. D'autres fois elles sont situées dans l'épaissure même de nerf, dont les filets sont écartés et les entourent.*" He proceeds to give a very full and interesting account of the symptoms and progress of the disease; he points out the necessity of an operation for its cure, and the preference that is due to the use of the knife for the removal of the diseased part, over that of caustic, or of the actual cautery, as being a much less painful and less tedious operation, and much more certain in its effect. He refers to ten of the cases published in the *Edinburgh Medical and Surgical Journal* *; to many of those

* In mentioning these cases, he states that the fourth in my original communication is imperfect, as it does not contain the

recorded by the authors whom I have already mentioned ; and he adds several new and interesting ones.

The first of these is detailed by M. Nicod, in these terms : “ Il y a deux ans que j’extirpai sur la poitrine d’une femme de quarante ans une tumeur lenticulaire de six à sept lignes de diamètre, mobile dans le tissu cellulaire sous-cutané, paraissant recouverte par la peau, amincie au point de lui donner une légère teinte brunâtre, qui, jointe à la violence des douleurs, qui privaient totalement la malade du sommeil depuis plusieurs mois, avait fait croire à plusieurs medecins que la tumeur était cancéreuse. Ce n’était qu’une tumeur enkystée, dont l’extirpation fut suivie d’un profond sommeil pendant toute la journée, la nuit suivante, et le lendemain presque entier *.”

The two following cases were given to Descot by M. Marjolin : “ 1st, M. J. marchand epicier, âgé de trente ans, d’une constitution robuste, éprouvait depuis plus d’un an des douleurs vives, lancinantes, intermittentes, dans le coté droit du scrotum, et à la partie interne de la cuisse du meme coté. Le scrotum n’était pas tuméfié ; mais il devenait plus rouge lorsque les douleurs etaient tres-vives et prolongées.

result. At the time when I wrote, the lady had not consented to an operation ; but topical remedies having produced little or no alleviation of her suffering, she soon afterwards agreed to the removal of the tubercle by the knife, and a perfect and permanent cure was effected.

* Nouveau Journal de Medecine, Novembre 1818.

Les bains emolliens, les cataplasmes et les linimens emolliens, et narcotiques, n'avaient produit aucun soulagement. Appelé pres de ce malade, je reconnus qu'il existait dans le tissu cellulaire du scrotum, immédiatement au-dessous de la peau, plusieurs petits corps lenticulaires, lisses, mobiles, durs et isolés les uns des autres. En comprimant ces corps entre les doigts, on donnait lieu à des douleurs analogues à celles que le malade ressentait habituellement. Il se decida facilement à se laisser extirper ces corps. Une petite incision fut faite sur chacun d'eux : et en comprimant les bords des incisions, on les fit sortir tres-aisément ; chacun d'eux pesait quelques grains ; leur surface etait lisse, blanche, sans consistance ferme ; en les incisant, ils parurent etre fibro-cartilagineux dans toute leur epaisseur ; ils ont paru plus denses vers leur peripherie qu'à leur centre. Depuis l'operation, le malade a entierement cessé de souffrir."

" 2d, Une Dame de Rouen, agée de soixante ans, porte à la partie interne et posterieure de genou une tumeur qui parait etre de la meme nature ; parait dure, lisse, mobile. La dame qui porte cette tumeur, eprouve de temps en temps de vives douleurs, qui partent de ce point, et se propagent avec rapidité, le long de la partie interne de la jambe et du pied. On est parvenu à calmer les douleurs par des applications narcotiques. Cette dame refuse de se soumettre à aucune operation."

In none of the cases which have been hitherto mentioned, has the tubercle disappeared without the

use of the knife, or without its being destroyed by the actual cautery, or by the application of caustic. There is one case, however, recorded by Descot *, supposed to be of this nature, in which the diseased part gradually disappeared, and the symptoms went off. The disease occurred in the person of the celebrated Beclard himself, who gives the following account of his own complaint : “ Un etudiant en medecine, elève interne à l’Hotel-Dieu d’Angers, habitant un appartement situé à plusieurs pieds au-dessous du sol de la cour, et couchant dans un alcove creusée dans l’épaisseur du mur de l’Hôpital, ent, au bout de quelques mois de séjour dans ce lieu insalubre, un accès d’arthritisme au gros orteil, et peu de temps après il se développa sous la peau qui recouvre la veine et le nerf saphéne internes à la jambe, une tumeur dure, grosse comme un grain de blé, et qui, toutes les fois qu’elle était touchée par le malade, soit en mettant ou en ôtant ses vêtements, soit dans toute autre circonstance, occasionnait une douleur qui s’étendait comme un choc électrique sur le pied dans la direction des ramifications du nerf. Ayant obtenu des administrateurs de l’hôpital un autre appartement, il fut, au bout de quelques mois, guéri de la neuralgie et du tubercule sous-cutané. La même personne, quelques années après, étant à Paris, eut sous le menton un petit furoncle dont la cicatrice resta pendant plusieurs mois le point de départ d’une douleur vive, excitée par le frottement

* Page 211.

du rasoir, et qui s'étendait en rayonnant au-devant du cou et de la poitrine."

The symptoms of this affection bear a strong resemblance to those of the disease which we have been describing, but I am disposed to doubt its having been of the same nature, as, from the texture of the tubercles which I have had an opportunity of examining, and from the description of others given by different writers, I can hardly suppose it possible that a tubercle of this kind, when once formed, could be removed by absorption; and it is the only case where such a termination has been suspected. From the second affection, too, in Becclard's case, where similar symptoms to those which had occurred in the first took place, without the formation of any tubercle, it may be supposed that both depended upon a different cause.

My friend Dr Craigie has favoured me with a perusal of a proof sheet of a general work upon anatomy preparing by him for publication, in which there is a neat short account of tumours of nerves, given by him when treating of the nervous tissue. He has adopted the opinion of Camper, that the small subcutaneous tubercles depend upon a diseased state of the subcutaneous nervous twigs; he thinks, however, that they should be considered distinctly from tumours originally formed in the larger trunks of nerves; and from tumours of various kinds, and of considerable size, which in their progress come to affect, or rather to involve, these trunks; to all these he retains the name of Neuroma, adopted by Odier.

To the lenticular or pisiform tubercle, which I have denominated painful subcutaneous, he proposes to apply the term Neuromation (*Νευροματιν*), with the view of marking their nervous origin. By him I have been favoured with references to several of the works I have already quoted.

The symptoms and progress of the disease, as detailed in these cases and histories, exhibit a remarkable similarity; and it is satisfactory to me to find, that by them is confirmed the accuracy of the general history of the complaint, which I drew up in 1812, when my means of information were much more limited than at present. It is to be observed, however, that the connexion betwixt the sensibility of the tubercle and changes of the weather, is more generally, and more strongly, marked in these cases, than in those originally published in the Medical and Surgical Journal. And in the cases reported by Dr Bisset and Mr John Pearson, the irritability of the tumour seems also to have been materially affected by the state of the female constitution, during the periods of pregnancy and menstruation; a fact, has not been generally remarked by writers upon the subject.

I shall now proceed to bring under the notice of the Society, a detailed account of three cases, in which symptoms of a much more severe and distressing kind, but luckily much more rare, were found to arise from, or, at least, to be connected with, small tumours, most probably of a similar na-

ture. The first is recorded by Dr Thomas Short, in the Medical Essays and Observations, published in 1728 *. “ In July 1720,” he says, “ a woman, about thirty-eight years of age, was brought to me; she had laboured twelve years under an *Epilepsy*, which, from one fit a month, was come to four or five violent ones every day, each continuing an hour, or an hour and a half; by which she was rendered moppish and silly, and incapable to take care of her house and family. Her husband was reduced in his circumstances, from his affection and care for her, having got, and followed, all the advice he could. Evacuations of all kinds had been tried; the epileptick and cephalick tribe of medicines had been ransacked, and many other medicines had been used in vain, the disease growing more severe. Her fit always began in her leg, towards the lower end of the *gastrocnemii* muscles, and, in a moment, reached her head, threw her down, foaming at the mouth, with terrible distortions of the mouth, neck and joints. Whilst I talked with her, she fell down in a fit. I examined the leg, and found no swelling, hardness, laxness, or redness, different in that place from what was in the other leg; but suspecting, from her fit beginning always at that part, that the cause of her disease lay there, I immediately plunged a scalpel about two inches into it, where I found a small indurated body, which I se-

* Medical Essays and Observations, published by a Society in Edinburgh, vol. iv. p. 416.

parated from the muscles, and then took it up with a forceps ; it proved a hard cartilaginous substance or *ganglion*, about the size of a very large pea, seated on a nerve, which I cut asunder, and took out the tumour. She instantly came out of the fit, cried out she was well, and never after had a fit, but recovered her former vigour, both of body and mind."

The second case is reported by Benedict Mojon and Marzell Covercelli, in the "*Memorie de la Societa Medica di Emulazione de Genova* *;" this I have not been able to see, but it is translated into German in Siebold's *Chiron* †, from which the following account is extracted. The case occurred in 1798. The woman experienced a sharp pain in the back part of the left leg, and afterwards a kind of cramp, which extended over the whole limb, and ceased after a few minutes. Some months afterwards she experienced a similar pain, accompanied by convulsions of the whole left side, which lasted about a quarter of an hour. For twenty months she had different convulsive attacks, always preceded by torpor of the left leg. She was particularly attacked by them, if she attempted to lift any thing heavy, or sat down quickly. The attacks became of longer duration, and more frequent, were no longer confined to the left side, but stretched over

* Tom. I. Primo quadrimestre, p. 89—93

† Band. I. st. 645

the whole body. They left behind them a want of power, and an extraordinary somnolence, which lasted several hours. She became gradually weaker, and more emaciated, and died 21st April 1800, after a very severe attack of convulsions, which lasted from mid-day to the following morning. The examination of the body was accidentally made in the dissecting-room ; on cutting through the muscles of the left leg, about the lower third of the semi-membranosus muscle, there was found an irregularly formed stone, of the size of a hazel nut, with a rough surface, which lay upon a ramification of the sciatic nerve. This stony concretion was surrounded by a cyst of cellular substance, and lay below the common integuments, beneath which it could be felt, on pressure with the finger. They had no doubt that the torpor of the left leg, which preceded each convulsive attack, her other sufferings, and even her death, were the consequences of this substance ; no other morbid appearance was observable in the body. These writers refer to the case recorded by Dr Short, and to a case mentioned by Cappel, where epilepsy, terminating in death, arose from a similar concretion attached to the par vagum ; and to a case detailed by De Haen, who considered the epilepsy to have depended upon small ganglion-like concretions attached to the phrenic nerves.

The third case occurred to Le Duc, a pupil of Portal's, who gives the following history of it : " Le citoyen *Le Duc*, un de mes anciens disciples, a gueri une femme qui eprouvoit de frequens accés

d'épilepsie, qui commençoient par de vives douleurs du pouce de la main droite, par l'extirpation d'un durillon pres de l'articulation de la premiere avec la seconde phalange du coté de la paume de la main. La plus legere compression de ce durillon donnoit lieu à de vives douleurs, et quelquefois à des accès d'épilepsie : la dure-mere n'étoit point apparente. J'avois vu cette malade, et je lui avois prescrit beaucoup de remedes inutilement. Les douleurs qui precedoient alors les accès epileptiques étoient beaucoup moins vives qu'elles ne le furent dans la suite *.

In these three cases, the epileptic fits seem to have been distinctly connected with the small nervous tumours ; in two of them, indeed, the proof of the connexion is quite satisfactory, as the epilepsy ceased as soon as they were removed.

In referring to them in his review, in the Edinburgh Medical and Surgical Journal, of Dr Abercrombie's invaluable work on the Diseases of the Brain and Spinal Cord, in which is given an interesting outline of the Diseases of Nerves, my learned and judicious friend, Dr Craigie, points out the propriety of an accurate examination being made of the part from whence the epileptic aura arises, in cases of epilepsy in which this symptom occurs, with the view of ascertaining whether any similar tumour exists. "It is not improbable," he

* Cours d'Anatomie Medicale par Antoine Portal, 1804, tom. vi. 247.

says, "that as, in these cases, the peculiar sensation called the *epileptic aura* was felt, the presence of these morbid growths was the material cause of the sensation. Though this is submitted as mere conjecture, we think it is not unseasonable to direct the attention of the practitioner to the fact, as it may enable him to cure a certain class of epileptic cases with more certainty than he could otherwise do*."

I have now detailed, at great length, the whole cases and histories of the disease with which I am acquainted.

The cases which I consider as distinctly belonging to this species, or variety of tumour, and which have been referred to in this communication, amount to thirty-five; in twenty-eight of these the patients were female,—in five male,—and in two the sex is not mentioned. In twenty-two the tubercle was seated in the lower, and in eleven in the upper, extremities; in one on the chest; and in one in the scrotum. In three cases only was there more than one tubercle present at the same time. The disease does not seem to be connected with any particular period of life; it has been observed at all ages, from thirteen to above seventy. The size of the tumour has been found to vary from that of a grain of corn, to that of a bean

The disease is easily distinguished by the size,

* Edinburgh Medical and Surgical Journal, vol. xxix. p. 357.

form, and situation of the tubercle, and by the symptoms ; and, fortunately, it admits of being simply, safely, and effectually cured by the removal of the diseased part by the knife, which is much to be preferred to the more painful, more tedious, and less effectual method of cure, by the use of the actual cautery, or of caustic applications.

The tubercle is easily removed by a single incision, and it is unnecessary to take away any portion of the integuments, or of the surrounding cellular substance. No bad effect has ever been found to follow this operation ; and in one case only of twenty-five, in which excision was had recourse to, was there any return either of the tumour or of the pain : and in this solitary instance, it is to be remarked, an attempt had been made, previously to the excision of the tumour, to cure the disease, by making a crucial incision into the affected part, in order to promote suppuration, and thus to destroy its irritability : as this failed, excision was had recourse to, by which the complaint was removed for a time ; but soon afterwards the tumour was reproduced. It is by no means unlikely, however, that the return of the disease was owing to some part of the morbid part having been allowed to remain, when extirpation was adopted, in consequence of the previous crucial incision and suppuration. Caustic applications, on the contrary, have been found to produce very severe pain, the treatment is tedious, even when they prove successful ; and in several cases they have failed in curing the disease.

In regard to the nature of the tumour,—the opinion originally formed by CAMPER, that it depends upon a diseased enlargement of a portion of a subcutaneous nerve, has been almost universally adopted; and, from the nature of the symptoms, from their strong resemblance to those of Neuralgia, and to those arising from injuries done to the small subcutaneous nerves, as well as from the observations of several of the writers who have particularly examined the diseased part, there seems little reason to doubt the accuracy of the opinion. It is, however, very desirable that minute and accurate examinations of the tubercles, and surrounding parts, should be made, when opportunities occur of doing so; with the view of ascertaining, if possible, whether the diseased alteration of structure takes place in the neurilema, or within it; or whether it may have originated in the contiguous textures, and become afterwards connected with the nerve.

I am inclined to suspect that the very minute account of the structure of the tubercles given by some writers, has been drawn rather from a supposed analogy between them and the larger tumours connected with the nervous trunks, (in which the parts are much more distinct,) than from accurate observation: at least, in such examinations as I have been able to make, during the removal of the tubercle, or more carefully afterwards, I have found only a firm, whitish, homogeneous body, of a fibro-cartilaginous appearance; and I can hardly suppose it possible to discover, in a tumour of the size of a

pea, or of a bean, connected with a twig of a nerve so small as generally to escape observation (if, indeed, it be so connected), that the diseased part had existed "in the substance of the nerve itself, of which the fibrils had been separated from each other, and had surrounded the tumour." This description, however, I believe to be quite applicable to many of larger tumours of the nervous trunks.

In finishing these remarks, I ought, perhaps, to apologize to the Society, for having occupied so large a portion of time, upon a subject which may be considered by many to be unworthy of so much attention. It appears to me, however, that every observation is of importance, which tends to throw any light upon a class of diseases still very imperfectly understood,—those arising from, or connected with, morbid local affections of nerves.

Since the above communication was printed, I have received from my friend Dr Henry Davidson, whose accurate and extensive information upon every subject connected with the medical profession is well known, a reference to the following extremely interesting and well detailed case of painful subcutaneous tubercle, reported by Rayer*.

* *Traité Theorique et Pratique des Maladies de la Peau*, par P. Rayer, à Paris, 1826, tom. 1. p. 651.

“ *Tubercule sous-cutané douloureux, développé à la partie postérieure de la cuisse droite.*— Marie Joséphine Roy, femme Fuque, âgée de quarante-deux ans, demeurant à Mortain, département de Seine-et-Marne, fut admise à l'hôpital Cochin, le 1^{re} Octobre 1826.

“ Cette femme, d'un tempérament sanguin et d'une bonne constitution, irrégulièrement réglée depuis plusieurs années, était atteinte, depuis environ huit ans, de la maladie que M. Wood a désignée sous le nom de *tubercule sous-cutané douloureux*. Je distinguai en effet à la partie postérieure de la cuisse droite, vers la réunion de son tiers supérieure avec les deux tiers inférieurs, un tubercule sous-cutané du volume d'un grain de raisin ou d'un fort pois à cautère ; la peau qui le recouvrait avait conservé sa teinte naturelle, et n'adhérait pas avec le corps de cette petite tumeur. Lorsqu'on embrassait celle-ci avec les doigts, elle paraissait arrondie ou ovalaire, et elle était non-seulement très-douloureuse au toucher, mais elle devenait spontanément, dans la journée, le siège de douleurs très-vives qui se propageaient dans toute la cuisse et la jambe. Cette femme m'a raconté qu'elle éprouvait, depuis quelque temps, des picotemens très-vifs dans le point de la cuisse que j'ai indiqué, lorsqu'elle y distingua, en y portant la main, un petit tubercule du volume de la tête d'une grosse épingle. Il resta stationnaire pendant environ trois ou quatre ans, déterminant des accidens analogues à ceux qu'il produ au-

jourd'hui, mais moins intenses. Il a aquis successivement les dimensions que j'ai indiquées. Pendant tout ce laps de temps il n'a pas cessé de produire, chaque jour, des douleurs et des accidens que son peu de volume rendait difficiles à expliquer. Ces douleurs se déclaraient indifféremment le jour ou la nuit, par des paroxysmes dont le nombre, la durée et l'intensité sont devenus de plus en plus considérables. Cette femme en a éprouvé successivement depuis deux jusqu'à quinze par jour ; leur durée a varié d'un quart d'heure à une heure. Dans ces derniers temps, ils produisaient des angoisses inexprimables, et arrachaient quelquefois des larmes à cette malade, qui paraît avoir beaucoup de bon sens et de courage. Ces paroxysmes douloureux, qui se déclaraient souvent sans causes appréciables, étaient inévitablement produits par le plus léger attouchement du tubercule, et se développaient la nuit toutes les fois que cette malade se couchait du côté droit. Aussi, lorsque le femme Fuque se plaçait dans cette attitude, avait-elle soin d'interposer sa main, ou un autre corps entre le matelas et la partie supérieure de la cuisse. Elle prenait aussi toute sorte de précaution lorsqu'elle s'asseyait. Elle ne dissimule pas non plus qu'elle avait quelque répugnance, dans ces derniers temps, à faire examiner cette tumeur par les hommes de l'art. Pour en reconnaître le siège et les dimensions, ils exerçaient ordinairement différentes pressions à sa sur-

face, qui ne manquaient pas de produire un violent accès de douleur.

“ Chaque paroxysme était annoncé par des picotemens, par des élancemens très-aigus, et par un sentiment d'une très-forte chaleur dans le tubercule et la peau qui le recouvrait. Un instant après, la douleur se propageait dans toute la partie postérieure du membre, depuis le tubercule jusqu'au talon, et se terminait entre la malléole interne et le bord interne et inférieur du calcanéum, sans diminuer d'intensité, dans tout son trajet. Le tubercule, le jarret et la partie interne du talon étaient constamment des points les plus douloureux. La plante du pied à été constamment exempte de douleur. Jamais celle-ci ne s'est fait sentir dans les régions fessière et sciatique, ou sur tout autre point placé au-dessus du tubercule. En se propageant, cette douleur ne se montrait pas sous forme de trainée, et suivant la direction d'un nerf particulier; elle était générale à la partie postérieure du membre. Les muscles et les nerfs de la partie antérieure de la cuisse étaient tout-à-fait exempts de douleurs. Lorsque cette femme avait marché pendant plusieurs heures, ou lorsqu'elle s'était livrée à quelque exercice actif, les paroxysmes qui avaient lieu dans le jour étaient constamment plus vifs. Ces paroxysmes étaient également plus douloureux à l'approche des menstrues, et toutes les fois qu'il s'opérait un changement marqué dans la température de l'atmosphère, surtout lorsqu'elle devenait froide et humi-

de. Pendant le paroxysme, la douleur se faisait presque toujours sentir par élancemens, par ondées rapides, qui du tubercule s'étendaient au talon, et qui, d'après la description que la malade m'en a faite, pourraient être comparées aux sensations douloureuses produites par des décharges électriques. Lorsque ces paroxysmes étaient longs et intenses, non-seulement la femme Fuque éprouvait le sentiment d'une forte chaleur dans le tubercule, mais encore dans toute la partie postérieure de la cuisse. Aussi, lorsque ces accès la surprenaient pendant la nuit, cherchait-elle avec empressement les endroits non échauffés du lit. Après chaque paroxysme, qui n'était point accompagné de fièvre, cette femme était abattue ; comme après un travail forcé. Plusieurs personnes qu'elle avait consultées avaient considéré cette maladie comme rhumatismale, ou l'avaient désignée sous le nom de *crampe nerveuse*. Cette malade avait tenté différens remèdes, et appliqué à diverses reprises des sangsues autour du tubercule, sans éprouver de soulagement.

“ M. Guérbois, chirurgien de l'hôpital Cochin, pratiqua le lendemain, 2 Octobre, l'extirpation de cette petite tumeur, et j'assistai à l'opération. Le tubercule fut mis à nu à l'aide d'une incision longitudinale, qui n'intéressa que la peau et le tissu cellulaire sous-cutané. Les bords de l'incision furent écartés et détachés du tissu cellulaire dans l'espace de deux à trois lignes. Le tubercule, saisi avec une érigne, fut enlevé avec une petite portion du tissu lamineux

qui l'enveloppait. La plaie ne fournit que quelques gouttes de sang, et ses bords, rapprochés à l'aide de bandelettes de diachylon gommé, furent réunis par première intention.

“ A dater de l'opération, les paroxysmes ne se sont plus renouvelés, et le 6 Octobre la malade était complètement guérie d'une maladie qui, depuis huit ans, lui causait les douleurs les plus vives.

“ Je montrai, le jour même, ce tubercule à M. Olivier (d'Angers), et nous étudiâmes ensemble la structure de cette petite tumeur. Elle était ovöide, poids de six grains, lisse et d'un blanc très-légèrement bleuâtre. Cette teinte particulière, assez analogue à celle de l'empois, bien distincte sur-tout lorsqu'on examinait cette petite tumeur à la loupe, différait sensiblement du blanc nacré des cartilages. Le tissu de ce tubercule était solide et dur comme celui des fibro-cartilages, dont il différait en ce qu'on ne distinguait point de fibres dans son épaisseur. Il était homogène, sans vaisseaux et sans nerfs apparens, même à la loupe ; incisé dans plusieurs directions, il offrait partout la même consistance et ne présentait point d'aréoles. Extérieurement, il était enveloppé de tissu cellulaire, dans lequel nous ne pûmes distinguer aucun filet nerveux, même à l'aide d'une forte loupe. En résumé, l'aspect légèrement bleuâtre de ce tissu et les douleurs vives dont il avait été le siège dès les premiers temps de sa formation, nous firent penser qu'il était plutôt squir-

rheux que cartilagineux. Cette tumeur ne s'était point développée aux dépens d'un nerf; et en supposant même qu'elle fût située sur le trajet d'une des branches sous-cutanées postérieures du nerf sciatique, et qu'elle la comprimât, cette circonstance n'expliquerait ni l'intermittence des douleurs dont la tumeur était le siège, ni leur caractère aigu et lancinant."

This is a very interesting case, in consequence of there having occurred, in one individual, almost all the symptoms which have been met with, in various combinations, in the other patients. It is important, also, on account of the minuteness and accuracy of the examination of the tubercle made by Rayer and Ollivier. The appearances described by these gentlemen are very similar to those which I have found in the tubercles which I have had an opportunity of examining; and they have not been more successful than I have been, in detecting any communication betwixt the morbid part and the nervous system. In these circumstances we are not, perhaps, entitled to assert that every Painful Subcutaneous Tubercle depends upon disease commencing in a nerve, however strongly we may suspect this to be the case, from the nature of the symptoms, and from the difficulty which there is in explaining them upon any other supposition.

Rayer and Ollivier are of opinion, that the disease partakes of the nature of Scirrhus; the appearances, however, of the tubercle, even as described by them, are different from those generally adopted by patho-

logists as characteristic of true Scirrhus ; and the history and progress of the disease are unlike those of Scirrhus in all other situations and textures. Until this opinion, therefore, be confirmed, I think it better that the tumour should be considered as one *sui generis*, than as a modification of any of the others described by pathologists.